

AMENDMENTS TO THE CLAIMS

1-3 (canceled)

4 (currently amended). A method for optimizing transmission security and failure security in high-bit-rate data networks via signal line redundancy between network nodes such that parallel signal ~~line~~ lines are capable of at least one of being occupied and being switched to at least one of a working mode and a protection mode, wherein selectors, bridge circuits and interface modules are respectively provided at the network node side, each of the parallel signal lines is terminated at the network node side with a respective interface module, thereby creating an interface module redundancy, and each interface module is in an active state, comprising:

immediately countering a failure of one of the interface modules by ~~[[a]] signal line changeover~~ switching with a switching time of approximately 50 ms;

immediately countering a line error by the interface module redundancy; and

transmitting error messages between the respective interface modules of the parallel signal lines in each of the network nodes, wherein

the bridge circuit ensures that the interface modules, of which there are at least two, of each network node always contain data and information which is to be transmitted via the signal lines.

5 (previously presented). A method according to claim 4, wherein the interface modules are regarded as line components of the respective signal lines to be selected, and incoming data is forwarded by the selector.

6 (currently amended). An apparatus for optimizing transmission security and failure security in high-bit-rate data networks via signal line redundancy between network nodes, comprising:

parallel signal lines capable of at least one of being occupied and being switched to at least one of a working line and a protection line;

selectors, bridge circuits and interface modules respectively provided at a network node side, where each network node includes at least two interface modules respectively connected with a

signal line pair for incoming and outgoing lines, wherein the interface modules always contain data and information which is to be transmitted via the parallel signal lines;

an error message link provided between the interface modules of a network node; and

a processing unit for routing data to the at least two interface modules via the bridge circuit, wherein the processing unit receives data from an output side of the interface modules via the selector, wherein

the interface modules of each network node are active, and

the selectors immediately perform ~~[[a]] line changeover~~ switching between a working line and a protection line, with a switching time of approximately 50 ms, in the case of line errors or interface module errors.